CROMPTON CORP

Check this box if

Form 5

February 11, 2005

FORM 5 UNITED STATES SECURITIES AND EXCHANGE COMMISSION OMB

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington D.C. 20549

Washington, D.C. 20549

no longer subject to Section 16.
Form 4 or Form
5 obligations may continue.

ANNUAL STATEMENT OF CHANGES IN BENEFICIAL

OWNERSHIP OF SECURITIES

Expires: January 31, 2005
Estimated average burden hours per response... 1.0

Number:

3235-0362

See Instruction
1(b). Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,
Form 3 Holdings Section 17(a) of the Public Utility Holding Company Act of 1935 or Section
Reported
Form 4 30(h) of the Investment Company Act of 1940

Transactions Reported

1. Name and Address of Reporting Person * 2. Issuer Name and Ticker or Trading 5. Relationship of Reporting Person(s) to Issuer VAGNINI MICHAEL F Symbol CROMPTON CORP [CK] (Check all applicable) (Last) (First) (Middle) 3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year) Director 10% Owner _X__ Officer (give title Other (specify 12/31/2004 below) below) VP and Controller (Street) 4. If Amendment, Date Original 6. Individual or Joint/Group Reporting Filed(Month/Day/Year) (check applicable line)

MIDDLEBURY, CTÂ 06749

X Form Filed by One Reporting Person ___ Form Filed by More than One Reporting Person

(City)	(State) (Zip) Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned									
1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) (A) or Amount (D) Price		5. Amount of Securities Beneficially Owned at end of Issuer's Fiscal Year (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)		
Common Stock	Â	Â	Â	Â	Â	Â	2,023	D	Â	
Common Stock	Â	Â	Â	Â	Â	Â	4,372.9832	I	ESOP TRUST	
Common Stock	Â	Â	Â	Â	Â	Â	153.4958	I	DRIP	
Common Stock	Â	Â	Â	Â	Â	Â	63,485	I	LTIP Trust	
	Â	Â	Â	Â	Â	Â	10,275	I		

Edgar Filing: CROMPTON CORP - Form 5

Common Stock									Restricted Stock Account
Common Stock	Â	Â	Â	Â	Â	Â	6,500	I	Restricted Stock Account II
Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.			Persons w contained the form d	SEC 2270 (9-02)					

 $\label{thm:convergence} \begin{tabular}{ll} Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned \\ (e.g., puts, calls, warrants, options, convertible securities) \end{tabular}$

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		vative rities nired or osed o) r. 3,	6. Date Exerci Expiration Dat (Month/Day/Y	e	7. Title and A Underlying S (Instr. 3 and	Securities 1
					(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
NQ Stock Option (Right to Buy)	\$ 5.85	Â	Â	Â	Â	Â	10/20/2004	11/19/2013	Common Stock	13,812
NQ Stock Option (Right to Buy)	\$ 6.38	Â	Â	Â	Â	Â	01/21/2004	02/20/2013	Common Stock	5,690
NQ Stock Option (Right to Buy)	\$ 7.25	Â	Â	Â	Â	Â	10/22/2003	10/22/2012	Common Stock	7,132
NQ Stock Option (Right to Buy)	\$ 7.92	Â	Â	Â	Â	Â	10/23/2002	11/22/2011	Common Stock	10,000
	\$ 8.1562	Â	Â	Â	Â	Â	10/31/2001	11/30/2010		20,000

Edgar Filing: CROMPTON CORP - Form 5

NQ Stock Option (Right to Buy)									Common Stock	
NQ Stock Option (Right to Buy)	\$ 8.343	Â	Â	Â	Â	Â	10/19/2000	11/19/2009	Common Stock	40,473
NQ Stock Option (Right to Buy)	\$ 11.24	Â	Â	Â	Â	Â	11/23/2005	12/22/2014	Common Stock	25,000
NQ Stock Option (Right to Buy)	\$ 14.3438	Â	Â	Â	Â	Â	08/04/1999	11/14/2008	Common Stock	727
ISO Stock Option (Right to Buy)	\$ 5.85	Â	Â	Â	Â	Â	10/20/2004	10/19/2013	Common Stock	6,188
ISO Stock Option (Right to Buy)	\$ 6.38	Â	Â	Â	Â	Â	01/21/2004	01/21/2013	Common Stock	24,310
ISO Stock Option (Right to Buy)	\$ 7.25	Â	Â	Â	Â	Â	10/22/2003	10/22/2012	Common Stock	12,868
ISO Stock Option (Right to Buy)	\$ 7.92	Â	Â	Â	Â	Â	10/23/2003	10/23/2011	Common Stock	10,000
ISO Stock Option (Right to Buy)	\$ 8.343	Â	Â	Â	Â	Â	10/19/2001	10/19/2009	Common Stock	9,527
	\$ 14.3438	Â	Â	Â	Â	Â	08/04/1999	10/14/2008		7,273

Edgar Filing: CROMPTON CORP - Form 5

ISO Stock Option (Right to Buy)									Common Stock	
ISO Stock Option (Right to Buy)	\$ 16.875	Â	Â	Â	Â	Â	08/04/1999	11/16/2006	Common Stock	5,000
ISO Stock Option (Right to Buy)	\$ 26.4063	Â	Â	Â	Â	Â	08/04/1999	11/07/2007	Common Stock	5,000

Reporting Owners

Reporting Owner Name / Address	Relationships								
	Director	10% Owner	Officer	Other					
VAGNINI MICHAEL F	Â	Â	VP and Controller	Â					
MIDDLEBURY, CT 06749									

Signatures

Michael F.
Vagnini

**Signature of Reporting Person

Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space provided is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

Reporting Owners 4